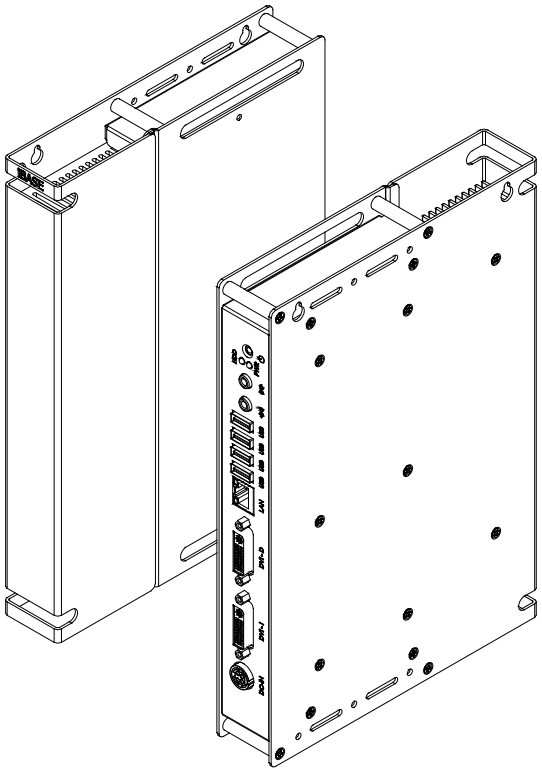
# SI-96 Series

# User Manual



2009 February V1.0

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# Safety Information

Your SI-96 is designed and tested to meet the latest standards of safety for information technology equipment. However, to ensure your safety, it is important that you read the following safety instructions.

## *Setting up your system*

- Read and follow all instructions in the documentation before you operate your system.
- Do not use this product near water.
- Set up the system on a stable surface or secure on wall with the provided rail. Do not secure the system on any unstable plane or without the rail.
- Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
- Slots and openings on the chassis are for ventilation. Do not block or cover these openings. Make sure you leave plenty of space around the system for ventilation. Never insert objects of any kind into the ventilation openings.
- This system should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- Use this product in environments with ambient temperatures between 0˚C and 45˚C.
- If you use an extension cord, make sure that the total ampere rating of the devices plugged into the extension cord does not exceed its ampere rating.

## *Care during use*

- Do not walk on the power cord or allow anything to rest on it.
- Do not spill water or any other liquids on your system.
- When the system is turned off, a small amount of electrical current still flows. Always unplug all power, and network cables from the power outlets before cleaning the system.
- If you encounter the following technical problems with the product, unplug the power cord and contact a qualified service technician or your retailer.
  - The power cord or plug is damaged.
  - Liquid has been spilled into the system.
  - The system does not function properly even if you follow the operating instructions.

- The system was dropped or the cabinet is damaged.

## Lithium-Ion Battery Warning

**CAUTION**: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

**NO DISASSEMBLY**

The warranty does not apply to the products that have been disassembled by users

# Acknowledgments


- Award is a registered trademark of Award Software International, Inc.
- PS/2 is a trademark of International Business Machines Corporation.
- Intel and Intel Core 2 Duo and Intel Celeron processors are registered trademarks of Intel Corporation.
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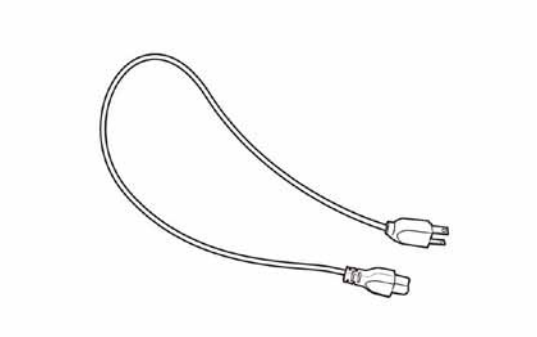
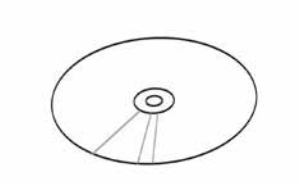
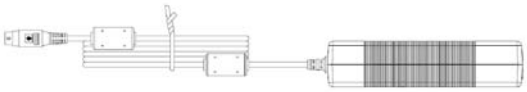
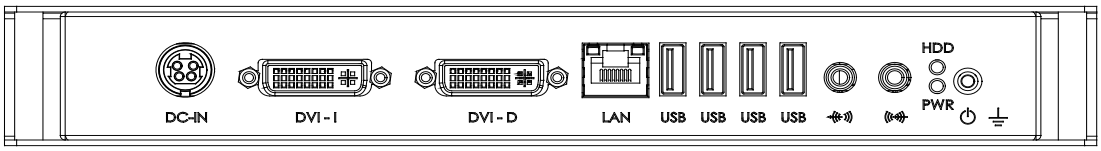
## Accessories

| | |
|---|---|
|  | |
| a. Power Cord x 1 | b. System Manual x 1 |
|  |  |
| c. Driver CD x 1 | d. Power Brick x 1 |

# Components

## I/O View

Refer to the diagram below to identify the components on this side of the system.




The power switch allows powering ON and OFF the system.

**HDD**

The hard disk LED blinks when data is being written into or read from the hard disk drive.

**PWR**

The power LED illuminated when system been power on.

**DVI-I**

The Digital Visual Interface (DVI) port supports a high quality VGA-compatible device such as a monitor or projector to allow viewing on a larger external display. This connector supports digital and analog video signals. To use the standard analog VGA output, you need to use the specific cable for this purpose.

**DVI-D**

The Digital Visual Interface (DVI) port supports a high quality VGA-compatible device such as a monitor or projector to allow viewing on a larger external display. This connector supports digital video signal only.

The stereo headphone jack (3.5mm) connects the audio signal to the system for recording or bypasses it to storage or LINE OUT.

The stereo audio jack (3.5mm) is used to connect the system's audio out signal to amplified speakers or headphones.

**LAN**

The 8-pin RJ-45 LAN port supports a standard Ethernet cable for connection to a local network.

**USB**

The USB (Universal Serial Bus) port is compatible with USB devices such as keyboards, mouse devices, cameras, and hard disk drives. USB allows many devices to run simultaneously on a single computer, with some peripheral acting as additional plug-in sites or hubs.

**DC IN**

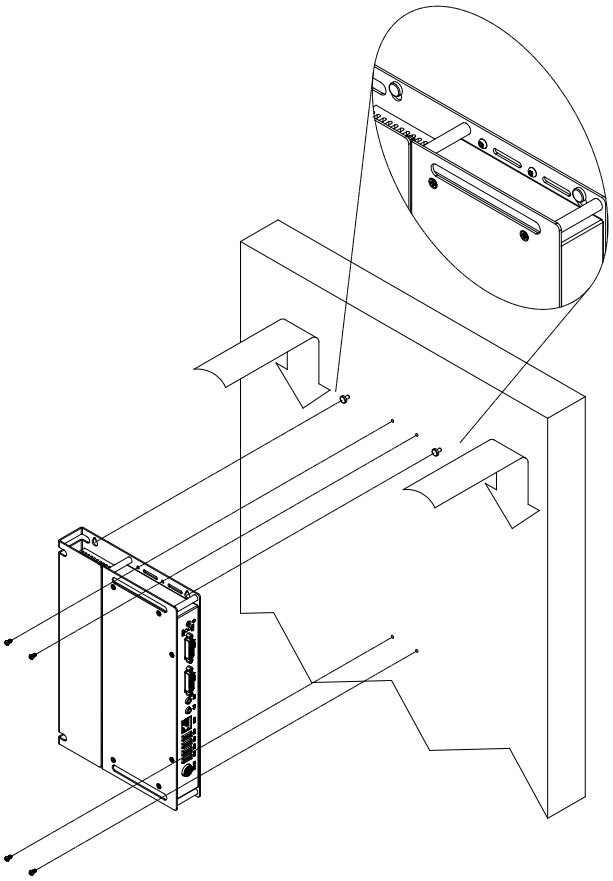
The supplied power adapter converts AC power to DC power for use with this jack. Power supplied through this jack supplies power to the system. To prevent damage to the system, always use the supplied power adapter.

# Specification

| | |
|---|---|
| **System Mainboard** | IB-826 |
| **Construction** | Aluminum |
| **Chassis Color** | Black |
| **Storage** | 2.5” 80GB SATA HDD x 1 |
| **Mounting** | Desktop or wall mount |
| **Dimensions** | 270(W) x 37(H) x 182(D)mm<br>(10.63” x 1.45” x 7.16”) |
| **Power Supply** | 80W DC adapter |
| **Operating Temperature** | 0°C ~ 45°C (32°F ~ 113°F) |
| **Storage Temperature** | -20°C ~ 80°C |
| **Relative Humidity** | 5~95% @45°C (non-condensing) |
| **Vibration** | HDD: 0.25grms/5~500Hz random operation |
| **Shock** | HDD: 15grms peak acceleration (11 msec duration) |
| **RoHS** | Available |

·This specification is subject to change without prior notice.

# Mounting SI-96 to the Wall



You can install SI-96 on wood, drywall surface over studs, or a solid concrete or metal plane directly. Ensure the installer uses at least four M3 length 8mm screws to secure the system on wall. ***Six M3 length 8mm screws are recommended to secure the system on wall.***

Fasteners are not included with the unit, and must be supplied by the installer. The types of fasteners required are dependent on the type of wall construction. Choose fasteners that are rated either ”Medium Duty“ or ”Heavy Duty.“ To assure proper fastener selection and installation, follow the fastener manufacturer’s recommendations.

## Wall mounting requirements

***Note:*** *Before mounting the system on wall, ensure that you are following all applicable building and electric codes.*

When mounting, ensure that you have enough room for power and signal cable routing. And have good ventilation for power adapter. The method of mounting must be able to support weight of the SI-96 plus the suspend weight of all the cables to be attached to the system. Use the following methods for mounting your system:

**Mounting to hollow walls**

- **Method 1: Wood surface** – A minimum wood thickness – 38mm (1.5in.) by 25.4 cm (10in.) – of high, construction – grade wood is recommended.
  **Note:** This method provides the most reliable attachment of the unit with little risk that the unit will come loose or require ongoing maintenance.
- **Method 2: Drywall walls** - Drywall over wood studs is acceptable.

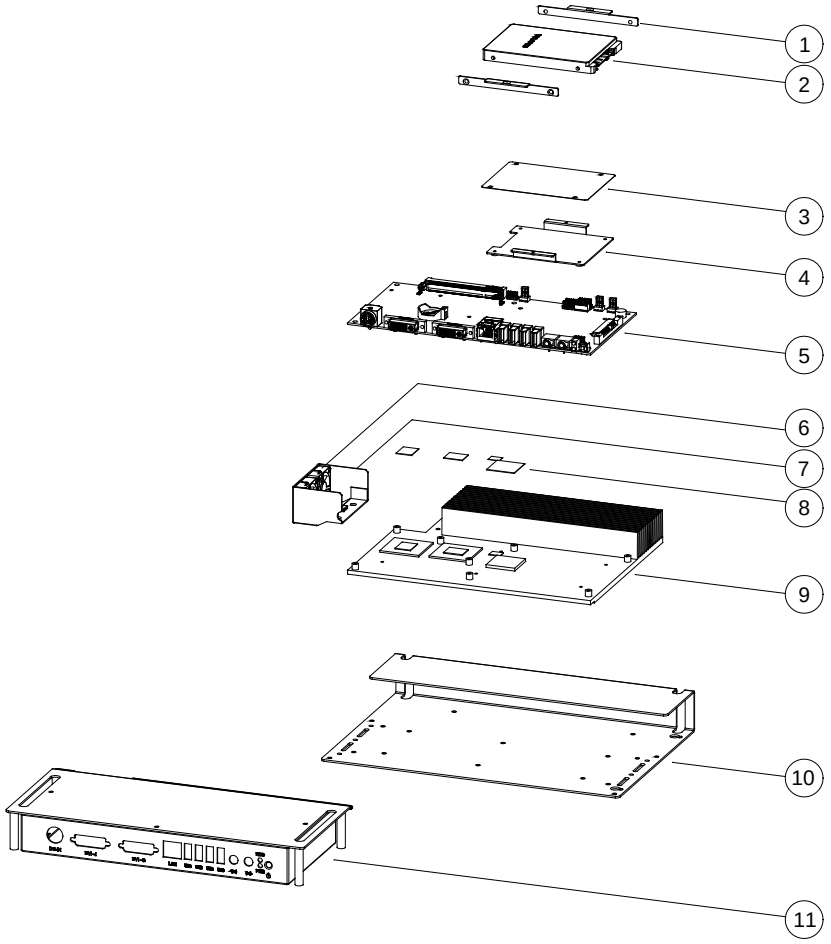
**Mounting to a solid concrete or brick wall** - Mounts on a flat smooth surface.

## Selecting the location

Plan the mounting location thoroughly. Locations such as walkway areas, hallways, and crowded areas are not recommended. Mount the unit to a flat, sturdy, structurally sound column or wall surface.

The best mounting surface is a standard countertop, cabinet, table, or other structure that is minimally the width and length of the unit. This recommendation reduces the risk that someone may accidentally walk into and damage the device. Local laws governing the safety of individuals might require this type of consideration.

# Exploded view of the SI-96 assembly




## Parts description

| Part NO. | Description | Part NO. | Description |
|---|---|---|---|
| 1 | HDD side bracket | 2 | HDD |
| 3 | HDD Mylar | 4 | HDD tray bracket |
| 5 | M/B IB826 | 6 | System fan |
| 7 | System fan bracket | 8 | Thermal Interface Material |
| 9 | Heat sink | 10 | Bottom chassis |
| 11 | Top cover w/ I/O wall | | |

# Installation

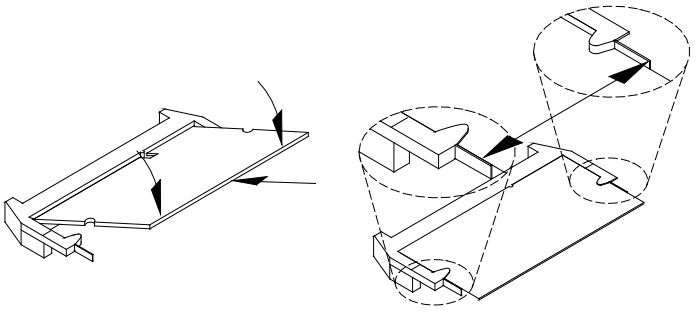
## Installing the memory

The IB826 board supports one DDR2 memory socket that can support up to 2GB memory size, DDR2 533/667 (w/o ECC function).

**Installing and Removing Memory Modules**

To install the DDR2 modules, locate the memory slot on the board and perform the following steps:

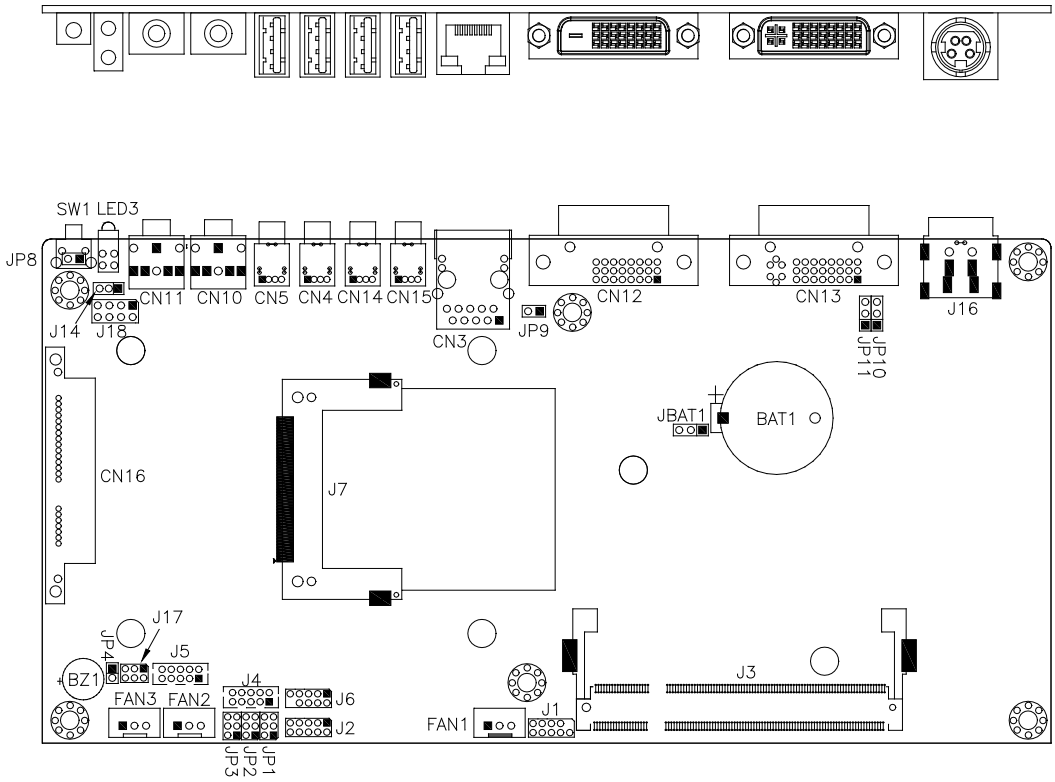
1. Hold the DDR2 module so that the key of the DDR2 module aligns with that on the memory slot. Insert the module into the socket at a slight angle (approximately 30 degrees). Note that the socket and module are both keyed, which means that the module can be installed only in one direction.
2. To seat the memory module into the socket, apply firm and even pressure to each end of the module until you feel it slip down into the socket.
3. With the module properly seated in the socket, rotate the module downward. Continue pressing downward until the clips at each end lock into position.
4. To remove the DDR2 module, press the clips with both hands.



## Setting Jumper

Jumpers are used on IB826 to select various settings and features according to your needs and applications. Contact your supplier if you have doubts about the best configuration for your needs. The following lists the connectors on IB826 and their respective functions

### Jumper Locations on IB826

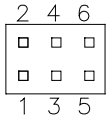



### J14: ATX or AT Power Selection

| JP14 | ATX Power |
|---|---|
| | ATX |
| | AT |

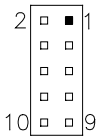
**JP1, JP2, JP3: RS232/422/485 (COM2) Selection**

COM1 is fixed for RS-232 use only. COM2 is selectable for RS232, RS-422 and RS-485. The following describes the settings for COM2.




| COM2 Function | RS-232 | RS-422 | RS-485 |
|---|---|---|---|
| Jumper Setting (pin closed) | JP1: 1-2<br>JP2: 3-5 & 4-6<br>JP3: 3-5 & 4-6 | JP1: 3-4<br>JP2: 1-3 & 2-4<br>JP3: 1-3 & 2-4 | JP1: 5-6<br>JP2: 1-3 & 2-4<br>JP3: 1-3 & 2-4 |

- COM2 is jumper selectable for RS-232, RS-422 and RS-485.




| Pin # | Signal Name | | |
|---|---|---|---|
| | RS-232 | R2-422 | RS-485 |
| 1 | DCD | TX- | DATA- |
| 2 | RX | TX+ | DATA+ |
| 3 | TX | RX+ | NC |
| 4 | DTR | RX- | NC |
| 5 | Ground | Ground | Ground |
| 6 | DSR | RTS- | NC |
| 7 | RTS | RTS+ | NC |
| 8 | CTS | CTS+ | NC |
| 9 | RI | CTS- | NC |
| 10 | NC | NC | NC |

**JBAT1: Clear CMOS Setting**

| JBAT1 | Setting |
|---|---|
| | Normal |
| | Clear CMOS |

**JP10/JP11: For CN13 DVI & CRT DDC_Clock, DDC_Data Select**

| JP10/JP11 | Monitor |
|---|---|
| | DVI |
| | CRT |

# BIOS Setup

This chapter describes the different settings available in the Award BIOS that comes with the board.

## BIOS Introduction

The Award BIOS (Basic Input / Output System) installed in your computer system's ROM supports various processors. The BIOS provides critical low-level support for a standard device such as disk drives, serial ports and parallel ports. It also adds virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

## BIOS Setup

The Award BIOS provides a Setup utility program for specifying the system configurations and settings. The BIOS ROM of the system stores the Setup utility. When you turn on the computer, the Award BIOS is immediately activated. Pressing the <Del> key immediately allows you to enter the Setup utility. If you are a little bit late pressing the <Del> key, POST (Power On Self Test) will continue with its test routines, thus preventing you from invoking the Setup. If you still wish to enter Setup, restart the system by pressing the "Reset" button or simultaneously pressing the <Ctrl>, <Alt> and <Delete> keys. You can also restart by turning the system Off and back On again. The following message will appear on the screen:

```
Press <DEL> to Enter Setup
```

In general, you press the arrow keys to highlight items, <Enter> to select, the <PgUp> and <PgDn> keys to change entries, <F1> for help and <Esc> to quit.

When you enter the Setup utility, the Main Menu screen will appear on the screen. The Main Menu allows you to select from various setup functions and exit choices.

Phoenix - AwardBIOS CMOS Setup Utility

| | |
|---|---|
| Standard CMOS Features | Frequency/Voltage Control |
| Advanced BIOS Features | Load Fail-Safe Defaults |
| Advanced Chipset Features | Load Optimized Defaults |
| Integrated Peripherals | Set Supervisor Password |
| Power Management Setup | Set User Password |
| PnP/PCI Configurations | Save & Exit Setup |
| PC Health Status | Exit Without Saving |
| ESC : Quit<br>F10 : Save & Exit Setup | ↑ ↓ → ← : Select Item |
| Time, Date, Hard Disk Type… | |

The section below the setup items of the Main Menu displays the control keys for this menu. At the bottom of the Main Menu just below the control keys section, there is another section, which displays information on the currently highlighted item in the list.

***Note:*** *If the system cannot boot after making and saving system changes with Setup, the Award BIOS supports an override to the CMOS settings that resets your system to its default.*

***Warning:*** *It is strongly recommended that you avoid making any changes to the chipset defaults. These defaults have been carefully chosen by both Award and your system manufacturer to provide the absolute maximum performance and reliability. Changing the defaults could cause the system to become unstable and crash in some cases.*

## Standard CMOS Setup

"Standard CMOS Setup" choice allows you to record some basic hardware configurations in your computer system and set the system clock and error handling. If the motherboard is already installed in a working system, you will not need to select this option. You will need to run the Standard CMOS option, however, if you change your system hardware configurations, the onboard battery fails, or the configuration stored in the CMOS memory was lost or damaged.

Phoenix - AwardBIOS CMOS Setup Utility

Standard CMOS Features

| | | |
|---|---|---|
| Date (mm:dd:yy) | Fri, Jan 9, 2009 | Item Help |
| Time (hh:mm:ss) | 11 : 00 : 00 | Menu Level > |
| IDE Channel 0 Master | None | Change the day, month, |
| IDE Channel 0 Slave | None | Year and century |
| IDE Channel 1 Master | None | |
| Video | EGA/VGA | |
| Halt On | All , But Keyboard | |
| Base Memory | 640K | |
| Extended Memory | 2086912K | |
| Total Memory | 2087936K | |

At the bottom of the menu are the control keys for use on this menu. If you need any help in each item field, you can press the <F1> key. It will display the relevant information to help you. The memory display at the lower right-hand side of the menu is read-only. It will adjust automatically according to the memory changed. The following describes each item of this menu.

### Date

To set the date, highlight the "Date" field and use the PageUp / PageDown or +/- key to set the current time.

The date format is:

**Day: Sun to Sat**

**Month: 1 to 12**

**Date: 1 to 31**

**Year: 1999 to 2099**

**Time**

To set the time, highlight the “Time” field and use the <PgUp>/ <PgDn> or +/- key to set the current time.

The time format is:

**Hour: 00 to 23**

**Minute: 00 to 59**

**Second: 00 to 59**

**IDE Channel Master/Slave**

The onboard PCI IDE connector provides Primary and Secondary channels for connecting up to two IDE hard disks or other IDE devices.

Press <Enter> to configure the hard disk. The selections include Auto, Manual, and None. Select ‘Manual’ to define the drive information manually. You will be asked to enter the following items.

**CYLS:** Number of cylinders
**HEAD:** Number of read/write heads
**PRECOMP:** Write precompensation
**LANDING ZONE:** Landing zone
**SECTOR:** Number of sectors

The Access Mode selections are as follows:

| | |
|---|---|
| CHS | (HD < 528MB) |
| LBA | (HD > 528MB and supports Logical Block Addressing) |
| Large | (For MS-DOS only) |
| Auto | |

**Video**

This field selects the type of video display card installed in your system. You can choose the following video display cards:

| | |
|---|---|
| EGA/VGA | For EGA, VGA, SEGA, SVGA or PGA monitor adapters. (Default) |
| CGA 40 | Power up in 40 column mode. |
| CGA 80 | Power up in 80 column mode. |
| MONO | For Hercules or MDA adapters. |

**Halt On**

This field determines whether or not the system will halt if an error is detected during power up.

No errors:

The system boot will not be halted for any error that may be detected.

All errors:

Whenever the BIOS detect a non-fatal error, the system will stop and you will be prompted.

All, But Keyboard:

The system boot will not be halted for a keyboard error; it will stop for all other errors

All, But Diskette:

The system boot will not be halted for a disk error; it will stop for all other errors.

All, But Disk/Key:

The system boot will not be halted for a key- board or disk error; it will stop for all others.

## Advanced BIOS Features

This section allows you to configure and improve your system and allows you to set up some system features according to your preference.

Phoenix - AwardBIOS CMOS Setup Utility

Advanced BIOS Features

| | | |
|---|---|---|
| CPU Feature | Press Enter | ITEM HELP |
| Hard Disk Boot Priority | Press Enter | Menu Level > |
| Virus Warning | Disabled | |
| Quick Power On Self Test | Enabled | |
| First Boot Device | Hard Disk | |
| Second Boot Device | USB-CDROM | |
| Third Boot Device | USB-FDD | |
| Boot Other Device | Enabled | |
| Boot Up NumLock Status | On | |
| Gate A20 Option | Fast | |
| Typematic Rate Setting | Disabled | |
| Typematic Rate (Chars/Sec) | 6 | |
| Typematic Delay (Msec) | 250 | |
| Security Option | Setup | |
| APIC Mode | Enabled | |
| MPS Version Control for OS | 1.4 | |
| OS Select For DRAM>64MB | Non-OS2 | |
| Full Screen Logo Show | Enabled | |
| Small Logo (EPA) Show | Disabled | |
| Summary Screen Show | Enabled | |

### CPU Feature

Press Enter to configure the settings relevant to CPU Feature.

### Hard Disk Boot Priority

With the field, there is the option to choose, aside from the hard disks connected, “Bootable add-in Cards” which refers to other external devices.

### Virus Warning

If this option is enabled, an alarm message will be displayed when trying to write on the boot sector or on the partition table on the disk, which is typical of the virus.

### Quick Power On Self Test

When enabled, this field speeds up the Power On Self Test (POST) after the system is turned on. If it is set to *Enabled*, BIOS will skip some items.

**First/Second/Third Boot Device**

These fields determine the drive that the system searches first for an operating system. The options available include *Floppy*, *LS120*, *Hard Disk*, *CDROM, ZIP100*, *USB-Floppy, USB-ZIP*, *USB-CDROM, LAN* and *Disable*.

**Boot Other Device**

These fields allow the system to search for an OS from other devices other than the ones selected in the First/Second/Third Boot Device.

**Boot Up NumLock Status**

This allows you to activate the NumLock function after you power up the system.

**Gate A20 Option**

This field allows you to select how Gate A20 is worked. Gate A20 is a device used to address memory above 1 MB.

**Typematic Rate Setting**

When disabled, continually holding down a key on your keyboard will generate only one instance. When enabled, you can set the two typematic controls listed next. By default, this field is set to ***Disabled.***

**Typematic Rate (Chars/Sec)**

When the typematic rate is enabled, the system registers repeated keystrokes speeds. Settings are from 6 to 30 characters per second.

**Typematic Delay (Msec)**

When the typematic rate is enabled, this item allows you to set the time interval for displaying the first and second characters. By default, this item is set to ***250msec.***

**Security Option**

This field allows you to limit access to the System and Setup. The default value is ***Setup***. When you select *System,* the system prompts for the User Password every time you boot up. When you select *Setup,* the system always boots up and prompts for the Supervisor Password only when the Setup utility is called up.

**APIC Mode**

APIC stands for Advanced Programmable Interrupt Controller. The default setting is ***Enabled***.

**MPS Version Control for OS**

This option is specifies the MPS (Multiprocessor Specification) version for your operating system. MPS version 1.4 added extended configuration tables to improve support for multiple PCI bus configurations and improve future expandability.

**OS Select for DRAM > 64MB**

This option allows the system to access greater than 64MB of DRAM memory when used with OS/2 that depends on certain BIOS calls to access memory. The default setting is ***Non-OS/2***.

**HDD S.M.A.R.T. Capability**

By default, this field is ***Disabled***.

**Small Logo (EPA) Show**

The EPA logo appears at the right side of the monitor screen when the system is boot up. The default setting is ***Disabled***.

## Advanced Chipset Features

This Setup menu controls the configuration of the chipset.

Phoenix - AwardBIOS CMOS Setup Utility

Advanced Chipset Features

| | | ITEM HELP |
|---|---|---|
| System BIOS Cacheable | Enabled | |
| Memory Hole at 15M-16M | Disabled | |
| PCI Express Root Port Function | Press Enter | |
| ** VGA Setting ** | | |
| PEG/On Chip VGA Control | Auto | |
| PEG Force X1 | Disabled | |
| On-Chip Frame Buffer Size | 8MB | |
| DVMT Mode | DVMT | |
| DVMT/FIXED memory Size | 128MB | |
| Boot Display | CRT+DVI | |

**System BIOS Cacheable**

The setting of *Enabled* allows caching of the system BIOS ROM at F000h-FFFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result.

**Memory Hole At 15M-16M**

In order to improve performance, certain space in memory can be reserved for ISA cards. This memory must be mapped into the memory space below 16 MB. The choices are *Enabled* and *Disabled*.

**On-Chip VGA Setting**

The fields under the On-Chip VGA Setting and their default settings are:

| | |
|---|---|
| PEG/On Chip VGA Control | Onchip VGA |
| PEG Force X1 | Disabled |
| On-Chip Frame Buffer Size | 8MB |
| DVMT Mode | DVMT |
| DVMT/FIXED memory Size | 128MB |
| Boot Display | CRT+DVI |

## Integrated Peripherals

This section sets configurations for your hard disk and other integrated peripherals. The first screen shows three main items for user to select. Once an item selected, a submenu appears. Details follow.

Phoenix - AwardBIOS CMOS Setup Utility

Integrated Peripherals

| | | |
|---|---|---|
| OnChip IDE Device | Press Enter | ITEM HELP |
| SuperIO Device | Press Enter | Menu Level > |
| USB Device Setting | Press Enter | |

Phoenix - AwardBIOS CMOS Setup Utility

**OnChip IDE Device**

| | | |
|---|---|---|
| IDE HDD Block Mode | Enabled | ITEM HELP |
| IDE DMA transfer access | Enabled | Menu Level > |
| ***On-Chip Serial ATA Setting*** | | |
| SATA Mode | IDE | |
| On-Chip Serial AT | SATA Only | |
| ***On-Chip PATA Setting*** | | |
| On-chip Primary PCI IDE | Enabled | |
| IDE Primary Master PIO | Auto | |
| IDE Primary Slave PIO | Auto | |
| IDE Primary Master UDMA | Auto | |
| IDE Primary Slave UDMA | Auto | |
| On-Chip Secondary PCI IDE | Enabled | |
| IDE Secondary Master PIO | Auto | |
| IDE Secondary Slave PIO | Auto | |
| IDE Secondary Master UDMA | Auto | |
| IDE Secondary Slave UDMA | Auto | |

Phoenix - AwardBIOS CMOS Setup Utility

**SuperIO Device**

| | | |
|---|---|---|
| POWER ON Function | BUTTON ONLY | ITEM HELP |
| KB Power ON Password | Enter | Menu Level > |
| Hot Key Power ON | Ctrl-F1 | |
| Onboard Serial Port 1 | 3F8/IRQ4 | |
| Onboard Serial Port 2 | 2F8/IRQ3 | |
| PWRON After PWR-Fail | Off | |

Phoenix - AwardBIOS CMOS Setup Utility

**USB Device Setting**

| | | |
|---|---|---|
| USB 1.0 Controller | Enabled | ITEM HELP |
| USB 2.0 Controller | Enabled | Menu Level > |
| USB Operation Mode | High Speed | |
| USB Keyboard Function | Enabled | |
| USB Mouse Function | Enabled | |
| USB Storage Function | Enabled | |
| *** USB Mass Storage Device Boot Setting *** | | |

**IDE HDD Block Mode**

This field allows your hard disk controller to use the fast block mode to transfer data to and from your hard disk drive.

**IDE DMA transfer access**

This field, by default, is ***Enabled***.

**On-chip Primary PCI IDE Enabled**

This field, by default, is ***Enabled***.

**On-chip Primary/Secondary PCI IDE**

The integrated peripheral controller contains an IDE interface with support for two IDE channels. Select *Enabled* to activate each channel separately.

**IDE Primary/Secondary Master/Slave PIO**

These fields allow your system hard disk controller to work faster. Rather than have the BIOS issue a series of commands that transfer to or from the disk drive, PIO (Programmed Input/Output) allows the BIOS to communicate with the controller and CPU directly.

The system supports five modes, numbered from 0 (default) to 4, which primarily differ in timing. When Auto is selected, the BIOS will select the best available mode.

**IDE Primary/Secondary Master/Slave UDMA**

These fields allow your system to improve disk I/O throughput to 33Mb/sec with the Ultra DMA/33 feature. The options are *Auto* and *Disabled*.

**On-Chip Serial ATA Setting**

The fields under the SATA setting include Serial ATA Mode (IDE) and ON-Chip Serial ATA (SATA Only).

**Power ON Function**

This field is related to how the system is powered on – such as with the use of conventional power button, keyboard or hot keys. The default is ***BUTTON ONLY***.

**KB Power ON Password**

This field allows users to set the password when keyboard power on is the mode of the Power ON function.

**Hot Key Power ON**

This field sets certain keys, also known as hot keys, on the keyboard that can be used as a 'switch' to power on the system.

**Onboard Serial Port**

These fields allow you to select the onboard serial ports and their addresses. The default values for these ports are:

| | |
|---|---|
| Serial Port 1 | 3F8/IRQ4 |
| Serial Port 2 | 2F8/IRQ3 |

**PWRON After PWR-Fail**

This field sets the system power status whether *on or off* when power returns to the system from a power failure situation.

**USB 1.0 Controller**

By default, this field is set to ***Enabled***.

**USB 2.0 Controller**

The options for this field are *Enabled* and *Disabled*. By default, this field is set to ***Enabled***. In order to use USB 2.0, necessary OS drivers must be installed first. ***Please update your system to Windows XP SP2.***

**USB Keyboard/Mouse/Storage Function**

The options for this field are *Enabled* and *Disabled*. By default, this field is set to ***Enabled***.

## Power Management Setup

Phoenix - AwardBIOS CMOS Setup Utility

Power Management Setup

| | | |
|---|---|---|
| ACPI Function | Enabled | ITEM HELP |
| ACPI Suspend | S1(POS) | |
| RUN VGABIOS if S3 Resume | Auto | Menu Level > |
| Power Management | User Define | |
| Video Off Method | V/H SYNC+Blank | |
| Video Off In Suspend | Yes | |
| Suspend Type | Stop Grant | |
| Modem Use IRQ | 3 | |
| Suspend Mode | Disabled | |
| HDD Power Down | Disabled | |
| Soft-Off by PWR-BTTN | Instant-Off | |
| CPU THRM-Throttling | 50.0% | |
| Wake-Up by PCI Card | Disabled | |
| Power On by Ring | Disabled | |
| Resume by Alarm | Disabled | |
| Date (of Month) Alarm | 0 | |
| Time (hh:mm:ss) Alarm | 0 : 0 : 0 | |
| ** Reload Global Timer Events ** | | |
| Primary IDE 0 | Enabled | |
| Primary IDE 1 | Enabled | |
| Secondary IDE 0 | Enabled | |
| Secondary IDE 1 | Enabled | |
| FDD, COM, LPT Port | Enabled | |
| PCI PIRQ[A-D] # | Enabled | |

**ACPI Function**

Enable this function to support ACPI (Advanced Configuration and Power Interface).

**ACPI Suspend**

The default setting of the ACPI Suspend mode is ***S1(POS)***.

**RUN VGABIOS if S3 Resume**

The default setting of this field is ***Auto***.

**Power Management Option**

This field allows you to select the type of power saving management modes. There are four selections for Power Management.

| | |
|---|---|
| Min. Power Saving: | Minimum power management |
| Max. Power Saving: | Maximum power management. |
| User Define: | Each of the ranges is from 1 min. to 1hr. Except for HDD Power Down which ranges from 1 min. to 15 min. |

**Video Off Method**

This field defines the Video Off features. There are three options.

*V/H SYNC + Blank:* Default setting, blank the screen and turn off vertical and horizontal scanning.

*DPMS:* Allows BIOS to control the video display.

*Blank Screen:* Writes blanks to the video buffer.

**Video Off In Suspend**

When enabled, the video is off in suspend mode. The default setting is ***Yes***.

**Suspend Type**

The default setting for the Suspend Type field is ***Stop Grant***.

**Modem Use IRQ**

This field sets the IRQ used by the Modem. By default, the setting is ***3***.

**Suspend Mode**

When enabled, and after the set time of system inactivity, all devices except the CPU will be shut off.

**HDD Power Down**

When enabled, and after the set time of system inactivity, the hard disk drive will be powered down while all other devices remain active.

**CPU THRM-Throttling**

When the system enters Doze mode, the CPU clock runs only part of the time. You may select the percent of time that the clock runs.

**Soft-Off by PWRBTN**

This field defines the power-off mode when using an ATX power supply. The *Instant Off* mode allows powering off immediately upon pressing the power button. In the *By Hardware mode*, the system powers off when the power button is pressed for more than four seconds or enters the suspend mode when pressed for less than 4 seconds.

**Wake up by PCI Card**

By default, this field is ***Disabled***.

**Power On by Ring**

This field *enables* or *disables* the power on of the system through the modem connected to the serial port or LAN.

**Resume by Alarm**

This field *enables* or *disables* the resumption of the system operation. When enabled, the user is allowed to set the *Date* and *Time*.

**Reload Global Timer Events**

The HDD, FDD, COM, LPT Ports, and PCI PIRQ are I/O events that can prevent the system from entering a power saving mode or can awaken the system from such a mode. When an I/O device wants to gain the attention of the operating system, it signals this by causing an IRQ to occur. When the operating system is ready to respond to the request, it interrupts itself and performs the service.

## PNP/PCI Configurations

This option configures the PCI bus system. All PCI bus systems on the system use INT#, thus all installed PCI cards must be set to this value.

Phoenix - AwardBIOS CMOS Setup Utility

PnP/PCI Configurations

| | | |
|---|---|---|
| Init Display First | Onboard | ITEM HELP |
| Reset Configuration Data | Disabled | Menu Level |
| Resources Controlled By | Auto (ESCD) | Select Yes if you are using a Plug and Play capable operating system Select No if you need the BIOS to configure non-boot devices |
| IRQ Resources | Press Enter | |
| PCI/VGA Palette Snoop | Disabled | |
| **PCI Express relative items** | | |
| Maximum Payload Size | 128 | |

**Init Display First**

The default setting is ***Onboard***.

**Reset Configuration Data**

This field allows you to determine whether to reset the configuration data or not. The default value is ***Disabled.***

**Resources Controlled by**

This PnP BIOS can configure all of the boot and compatible devices with the use of a PnP operating system such as Windows 95.

**PCI/VGA Palette Snoop**

Some non-standard VGA display cards may not show colors properly. This field allows you to set whether or not MPEG ISA/VESA VGA cards can work with PCI/VGA. When this field is enabled, a PCI/VGA can work with an MPEG ISA/VESA VGA card. When this field is disabled, a PCI/VGA cannot work with an MPEG ISA/VESA card.

**Maximum Payload Size**

The default setting of the PCI Express Maximum Payload Size is 128.

## PC Health Status

This section shows the parameters in determining the PC Health Status. These parameters include temperatures, fan speeds and voltages.

Phoenix - AwardBIOS CMOS Setup Utility

PC Health Status

| | | ITEM HELP |
|---|---|---|
| Shutdown Temperature | Disabled | |
| CPU Warning Temperature | Disabled | |
| Current System Temp | 45°C/113°F | Menu Level > |
| Current CPU Temp | 45°C/113°F | |
| FAN2 Speed | 5400 RPM | |
| FAN1 Speed | 5400 RPM | |
| FAN3 Speed | 5400 RPM | |
| Vcore | 1.16 V | |
| 12 V | 11.87 V | |
| 1.8V | 1.90 V | |
| 5V | 5.17 V | |
| 3.3V | 3.31 V | |
| VBAT (V) | 3.26 V | |
| 3VSB(V) | 3.29 V | |

**Shutdown Temperature**

This field allows the user to set the temperature by which the system automatically shuts down once the threshold temperature is reached. This function can help prevent damage to the system that is caused by overheating.

**CPU Warning Temperature**

This field allows the user to set the temperature so that when the temperature is reached, the system sounds a warning. This function can help prevent damage to the system that is caused by overheating.

**Temperatures/Voltages**

These fields are the parameters of the hardware monitoring function feature of the board. The values are read-only values as monitored by the system and show the PC health status.

## Frequency/Voltage Control

This section shows the user how to configure the processor frequency.

Phoenix - AwardBIOS CMOS Setup Utility

Frequency/Voltage Control

| | | |
|---|---|---|
| Auto Detect PCI Clk | Disabled | ITEM HELP |
| Spread Spectrum | Disabled | Menu Level > |

### Auto Detect PCI Clk

This field enables or disables the auto detection of the PCI clock.

### Spread Spectrum

This field sets the value of the spread spectrum. The default setting is ***Disabled***.

This field is for CE testing use only.

## Load Fail-Safe Defaults

This option allows you to load the troubleshooting default values permanently stored in the BIOS ROM. These default settings are non-optimal and disable all high-performance features.

## Load Optimized Defaults

This option allows you to load the default values to your system configuration. These default settings are optimal and enable all high performance features.

## Set Supervisor Password

These two options set the system password. Supervisor Password sets a password that will be used to protect the system and Setup utility. User Password sets a password that will be used exclusively on the system. To specify a password, highlight the type you want and press <Enter>. The Enter Password: message prompts on the screen. Type the password, up to eight characters in length, and press <Enter>. The system confirms your password by asking you to type it again. After setting a password, the screen automatically returns to the main screen.

To disable a password, just press the <Enter> key when you are prompted to enter the password. A message will confirm the password to be disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

## Save & Exit Setup

This option allows you to determine whether or not to accept the modifications. If you type “Y”, you will quit the setup utility and save all changes into the CMOS memory. If you type “N”, you will return to Setup utility.

## Exit Without Saving

Select this option to exit the Setup utility without saving the changes you have made in this session. Typing “Y” will quit the Setup utility without saving the modifications. Typing “N” will return you to Setup utility.

# Driver Installation

This section describes the installation procedures for software and drivers under Windows XP and Windows Vista. The software and drivers are included with the board. If you find the items missing, please contact the vendor where you made the purchase.

***IMPORTANT NOTE:***

*After installing your Windows operating system (Windows XP/ Vista), you must install first the Intel Chipset Software Installation Utility before proceeding with the drivers installation.*

## Intel Chipset Software Installation Utility

The Intel Chipset Drivers should be installed first before the software drivers to enable Plug & Play INF support for Intel chipset components. Follow the instructions below to complete the installation under Windows XP/Vista.

1. Insert the CD that comes with the board. Click Intel and then Intel(R)GM/GME965 Chipset Drivers.
2. Click ***Intel(R) Chipset Software Installation Utility.***

Inside This CD...
Version : 8.2.2D
Intel
VIA
ALi/ATi/AMD
VGA Card
LAN Card
SCSI/SATA Card
Tools
Intel(R) Chipset Software Installation Utility
Intel(R) GM/GME965 Chipset Family Graphics Dri
Realtek High Definition Codec Audio Driver
Intel(R) PRO LAN Network Drivers
Update Windows OS with Plug and Play feature and allow the OS to correctly identify the Intel chipset components and properly

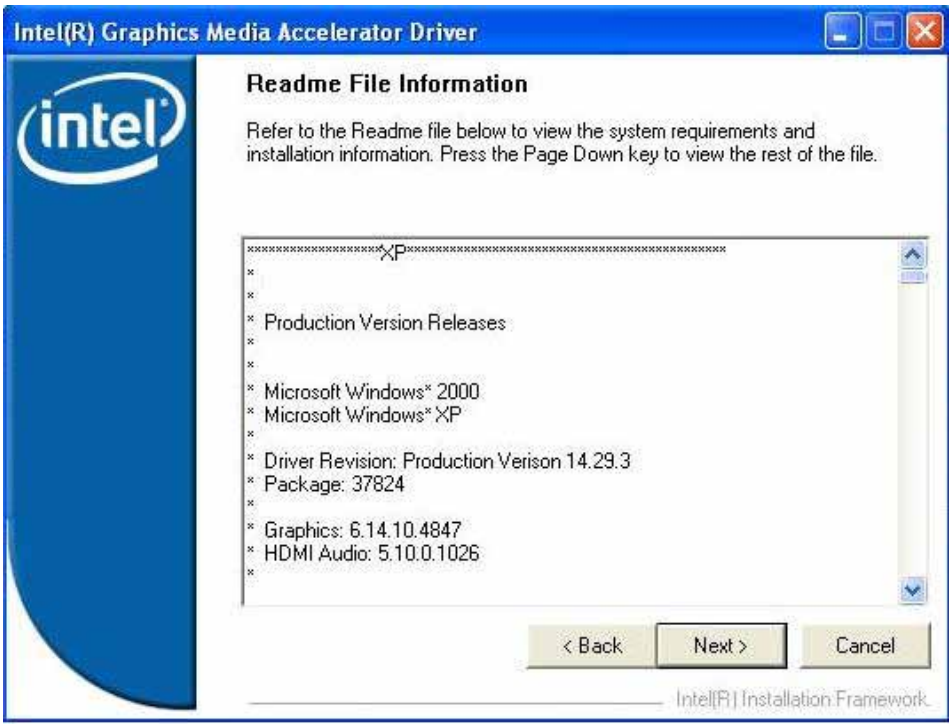
3. When the Welcome screen appears, click ***Next*** to continue.

Intel® Chipset Device Software
Intel® Chipset Device Software
Welcome to the Setup Program
This setup program will install the Intel® Chipset Device Software onto this computer. It is strongly recommended that you exit all programs before continuing.
< Back
Next >
Cancel
Intel® Installation Framework

4. Click ***Yes*** to accept the software license agreement and proceed with the installation process.

Intel® Chipset Device Software
Intel® Chipset Device Software
License Agreement
You must accept all of the terms of the license agreement in order to continue the setup program. Do you accept the terms?
INTEL SOFTWARE LICENSE AGREEMENT (OEM / IHV / ISV Distribution & Single User)
IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING.
Do not use or load this software and any associated materials (collectively, the "Software") until you have carefully read the following terms and conditions. By loading or using the Software, you agree to the terms of this Agreement. If you do not wish to so agree, do not install or use the Software.
Please Also Note:
* If you are an Original Equipment Manufacturer (OEM), Independent Hardware Vendor (IHV), or Independent Software Vendor (ISV), this complete LICENSE AGREEMENT applies;
< Back
Yes
No
Intel® Installation Framework

5. On Readme Information screen, click ***Next*** to continue the installation.


Intel(R) Graphics Media Accelerator Driver
Readme File Information
Refer to the Readme file below to view the system requirements and installation information. Press the Page Down key to view the rest of the file.
XP
Production Version Releases
Microsoft Windows* 2000
Microsoft Windows* XP
Driver Revision: Production Verison 14.29.3
Package: 37824
Graphics: 6.14.10.4847
HDMI Audio: 5.10.0.1026
< Back
Next >
Cancel
Intel(R) Installation Framework

2. Click ***Intel(R) Chipset Software Installation Utility.***

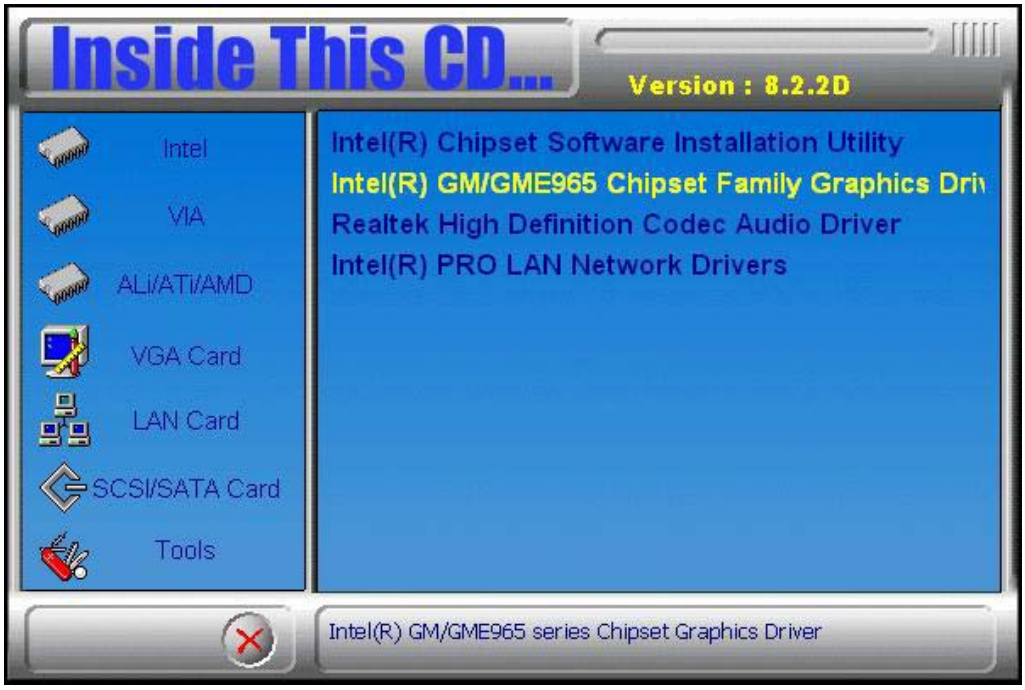
Inside This CD...
Version : 8.2.2D
Intel
VIA
ALi/ATi/AMD
VGA Card
LAN Card
SCSI/SATA Card
Tools
Intel(R) Chipset Software Installation Utility
Intel(R) GM/GME965 Chipset Family Graphics Dri
Realtek High Definition Codec Audio Driver
Intel(R) PRO LAN Network Drivers
Update Windows OS with Plug and Play feature and allow the OS to correctly identify the Intel chipset components and properly

6. The Setup process is now complete. Click ***Finish*** to restart the computer and for changes to take effect.

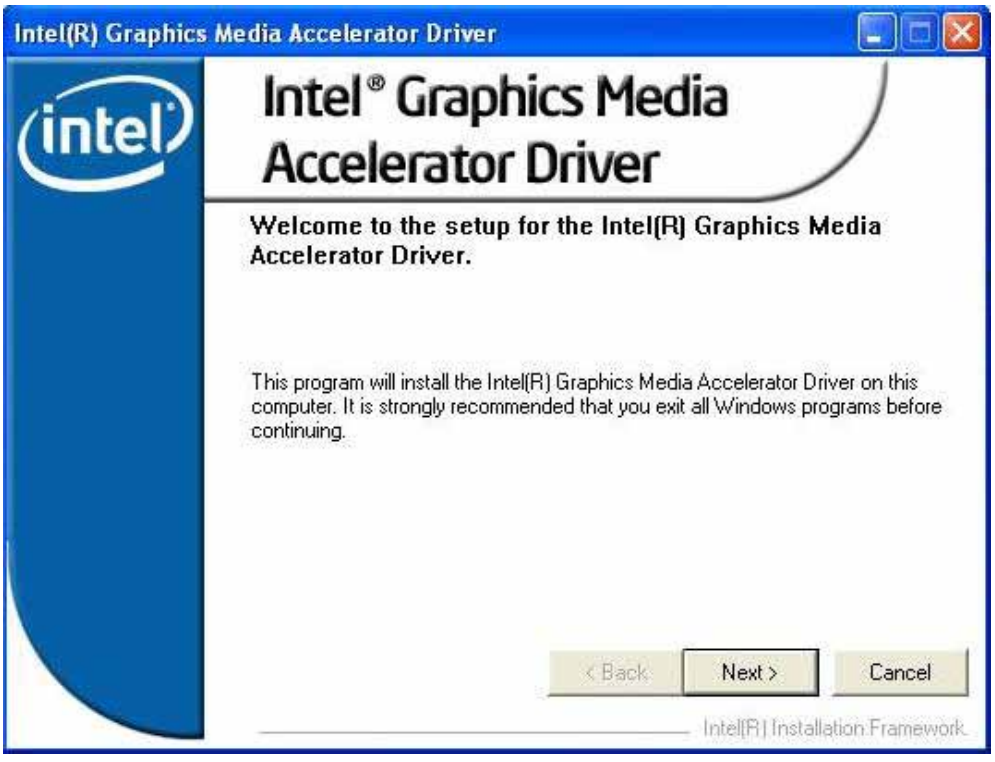
## VGA Driver Installation

To install the VGA drivers, follow the steps below to proceed with the installation.

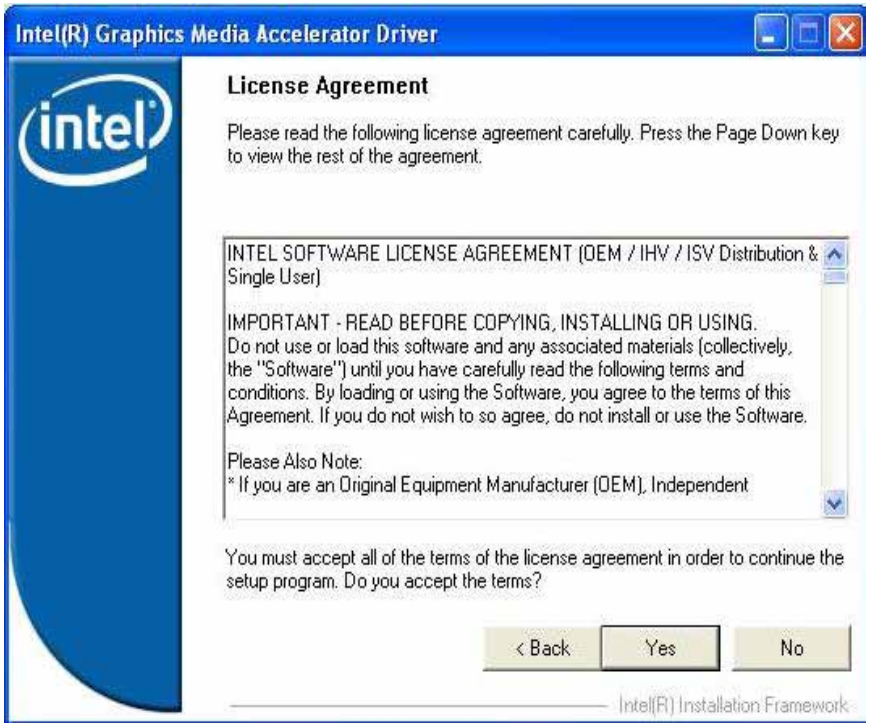
1. Insert the CD that comes with the board. Click ***Intel*** and then ***Intel(R) GM/GME965 Chipset Drivers***.
2. Click ***Intel(R) GM/GME965 Chipset Family Graphics Driver.***




3. When the Welcome screen appears, click ***Next*** to continue.


Intel(R) Graphics Media Accelerator Driver
Intel® Graphics Media Accelerator Driver
Welcome to the setup for the Intel(R) Graphics Media Accelerator Driver.
This program will install the Intel(R) Graphics Media Accelerator Driver on this computer. It is strongly recommended that you exit all Windows programs before continuing.
< Back
Next >
Cancel
Intel(R) Installation Framework

4. Click ***Yes*** to to agree with the license agreement and continue the installation.


Intel(R) Graphics Media Accelerator Driver
License Agreement
Please read the following license agreement carefully. Press the Page Down key to view the rest of the agreement.
INTEL SOFTWARE LICENSE AGREEMENT (OEM / IHV / ISV Distribution & Single User)
IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING.
Do not use or load this software and any associated materials (collectively, the "Software") until you have carefully read the following terms and conditions. By loading or using the Software, you agree to the terms of this Agreement. If you do not wish to so agree, do not install or use the Software.
Please Also Note:
* If you are an Original Equipment Manufacturer (OEM), Independent
You must accept all of the terms of the license agreement in order to continue the setup program. Do you accept the terms?
< Back
Yes
No
Intel(R) Installation Framework

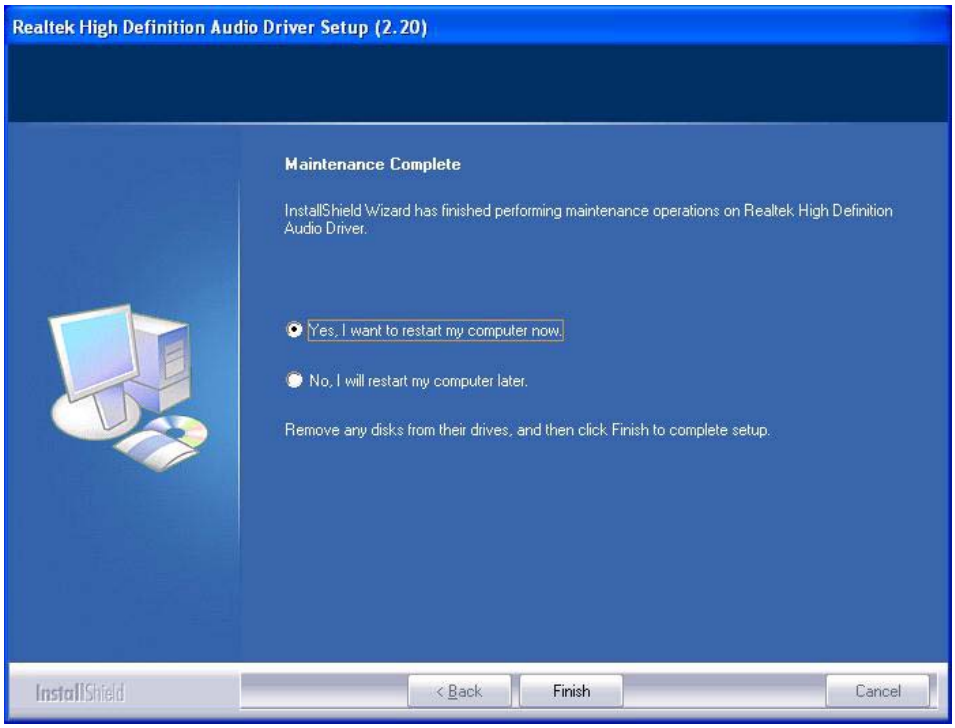
5. Proceed as instructed and restart the computer as prompted and for changes to take effect.

Intel® Chipset Device Software
Intel® Chipset Device Software
Setup Progress
Please wait while the following setup operations are performed:
Installing Driver: Intel(R) ICH8 Family USB Universal Host Controller - 2834
Version: 8.0.0.1008
Installing Driver: Intel(R) ICH8 Family USB Universal Host Controller - 2835
Version: 8.0.0.1008
Installing Driver: Intel(R) ICH8 Family USB2 Enhanced Host Controller - 2836
Version: 8.0.0.1008
Installing Driver: Intel(R) ICH8 Family USB2 Enhanced Host Controller - 283A
Version: 8.0.0.1008
Click Next to continue.
Next
Intel® Installation Framework

## Realtek High Definition Audio Driver Installation

1. Insert the CD that comes with the board. Click ***Intel*** and then ***Intel(R)GM/GME965Chipset Drivers***. And ***Click Realtek High Definition Codec Audio Driver***.

2. In the **Welcome** screen, click **Next** to continue. After the driver installation, click **Finish** on the next screen to restart the computer.

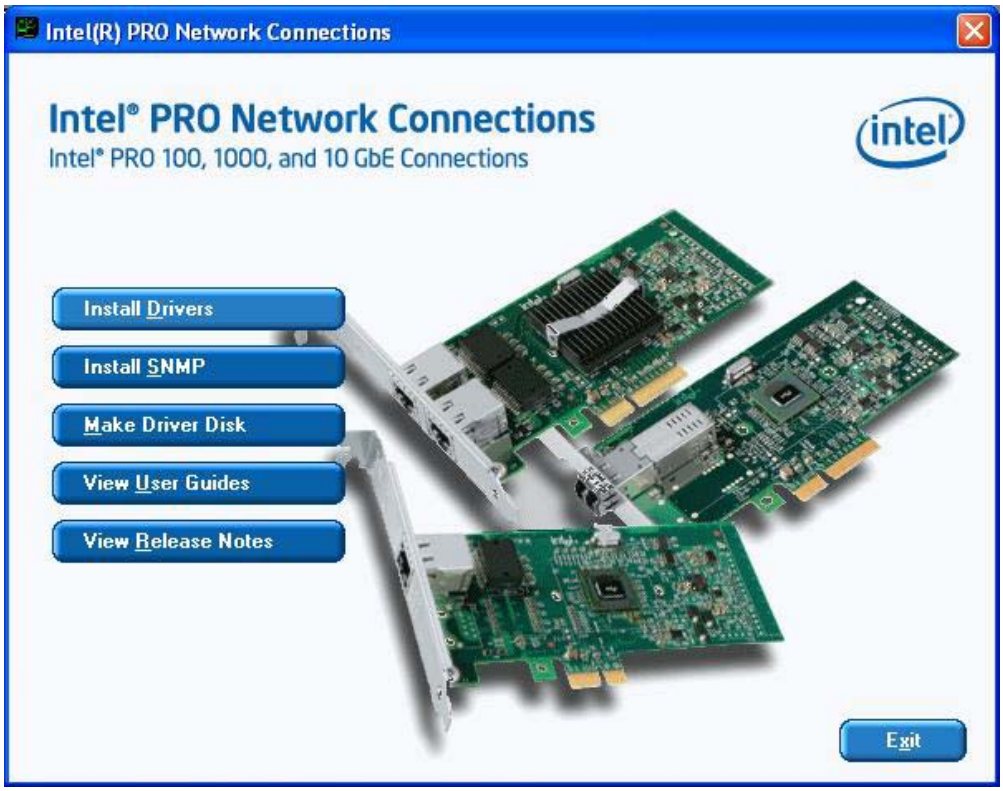

Realtek High Definition Audio Driver Setup (2.20)
Maintenance Complete
InstallShield Wizard has finished performing maintenance operations on Realtek High Definition Audio Driver.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup.
InstallShield
< Back
Finish
Cancel

## LAN Driver Installation

Follow the steps below to install the **Intel 82574L LAN Drivers**.

1. Insert the CD that comes with the board. Click ***LAN Card*** and then ***Intel(R) PRO 82574L LAN Drivers***.

2. In the next screen, click ***Install Drivers***.



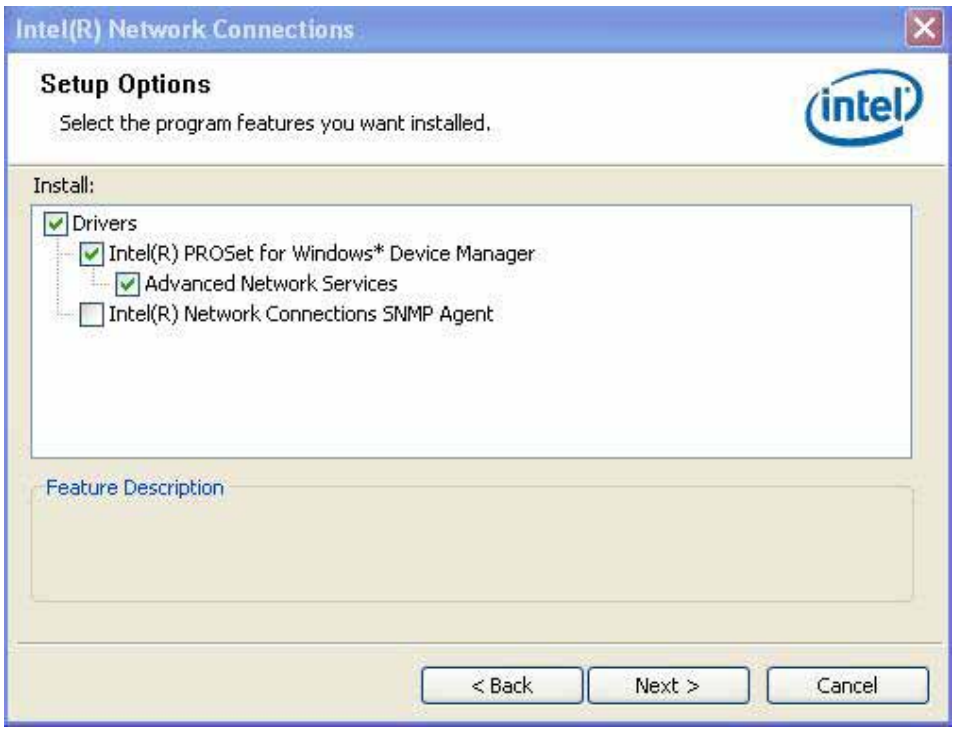
3. In the Welcome screen to the InstallShield Wizard for Intel(R) Network Connections, click ***Next***.

Intel(R) Network Connections - InstallShield Wizard
Welcome to the InstallShield Wizard for Intel(R) Network Connections
intel
Installs drivers, Intel(R) PROSet for Windows* Device Manager, and Advanced Networking Services.
WARNING: This program is protected by copyright law and international treaties.
InstallShield
< Back
Next >
Cancel

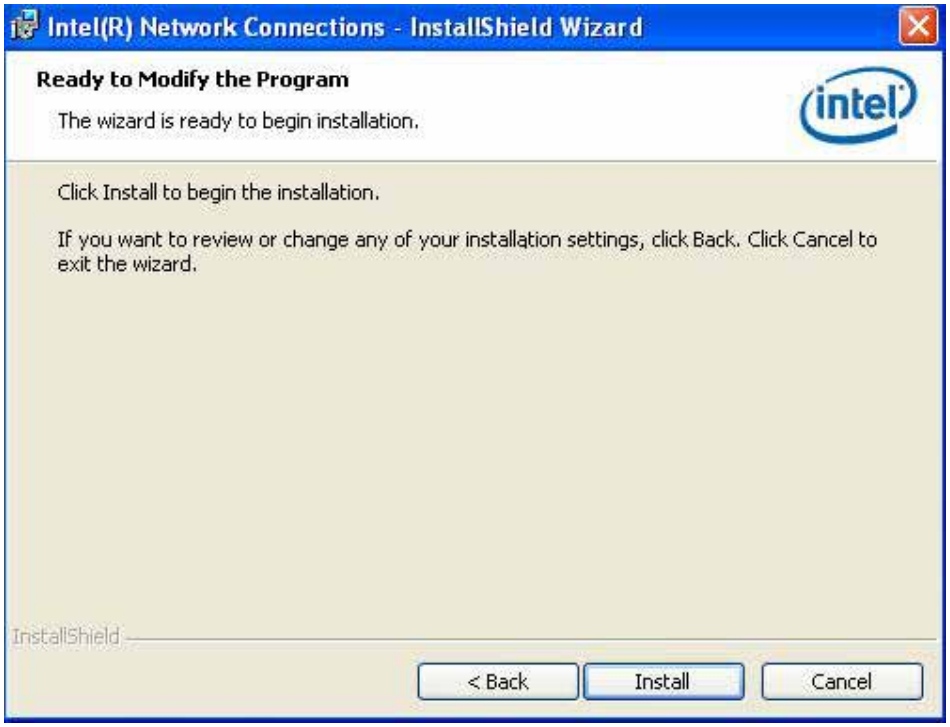
4. In the License Agreement screen, click ***Next*** to accept the terms in the license agreement.

Intel(R) Network Connections - InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
intel
INTEL SOFTWARE LICENSE AGREEMENT (Final, License)
IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING.
Do not use or load this software and any associated materials (collectively, the "Software") until you have carefully read the following terms and conditions. By loading or using the Software, you agree to the terms of this Agreement. If you do not wish to so agree, do not install or use the Software.
LICENSES: Please Note:
I accept the terms in the license agreement
I do not accept the terms in the license agreement
Print
InstallShield
< Back
Next >
Cancel

5. In the Setup Options screen, click the checkbox of Drivers to select it and then click ***Next***.




6. Click ***Install*** to begin installation of the drivers.


Intel(R) Network Connections - InstallShield Wizard
Ready to Modify the Program
The wizard is ready to begin installation.
intel
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

7. When the InstallShield Wizard is completed, click ***Finish***.

# Appendix

## I/O Port Address Map

Each peripheral device in the system is assigned a set of I/O port addresses which also becomes the identity of the device. The following table lists the I/O port addresses used.

| Address | Device Description |
|---|---|
| 000h - 01Fh | DMA Controller #1 |
| 020h - 03Fh | Interrupt Controller #1 |
| 040h - 05Fh | Timer |
| 060h - 06Fh | Keyboard Controller |
| 070h - 07Fh | Real Time Clock, NMI |
| 080h - 09Fh | DMA Page Register |
| 0A0h - 0BFh | Interrupt Controller #2 |
| 0C0h - 0DFh | DMA Controller #2 |
| 0F0h | Clear Math Coprocessor Busy Signal |
| 0F1h | Reset Math Coprocessor |
| 1F0h - 1F7h | IDE Interface |
| 278 - 27F | Parallel Port #2(LPT2) |
| 2F8h - 2FFh | Serial Port #2(COM2) |
| 2B0 - 2DF | Graphics adapter Controller |
| 378h - 3FFh | Parallel Port #1(LPT1) |
| 360 - 36F | Network Ports |
| 3B0 - 3BF | Monochrome & Printer adapter |
| 3C0 - 3CF | EGA adapter |
| 3D0 - 3DF | CGA adapter |
| 3F0h - 3F7h | Floppy Disk Controller |
| 3F8h - 3FFh | Serial Port #1(COM1) |

## Interrupt Request Lines (IRQ)

Peripheral devices use interrupt request lines to notify CPU for the service required. The following table shows the IRQ used by the devices on board.

| Level | Function |
|---|---|
| IRQ0 | System Timer Output |
| IRQ1 | Keyboard |
| IRQ2 | Interrupt Cascade |
| IRQ3 | Serial Port #2 |
| IRQ4 | Serial Port #1 |
| IRQ5 | Reserved |
| IRQ6 | Floppy Disk Controller |
| IRQ7 | Parallel Port #1 |
| IRQ8 | Real Time Clock |
| IRQ9 | Reserved |
| IRQ10 | Reserved |
| IRQ11 | Reserved |
| IRQ12 | PS/2 Mouse |
| IRQ13 | 80287 |
| IRQ14 | Primary IDE |
| IRQ15 | Secondary IDE |

## Watchdog Timer Configuration

The WDT is used to generate a variety of output signals after a user programmable count. The WDT is suitable for use in the prevention of system lock-up, such as when software becomes trapped in a deadlock. Under these sorts of circumstances, the timer will count to zero and the selected outputs will be driven. Under normal circumstance, the user will restart the WDT at regular intervals before the timer counts to zero.

### SAMPLE CODE:

```
//=============================================================================
//
// THIS CODE AND INFORMATION IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY
// KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE
// IMPLIED WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR
// PURPOSE.
//
//=============================================================================
#include <stdio.h>
#include <stdlib.h>
#include "W627EHF.H"
//=============================================================================
int main (int argc, char *argv[]);
void copyright(void);
void EnableWDT(int);
void DisableWDT(void);
//=============================================================================
int main (int argc, char *argv[])
{
    unsigned char bBuf;
    unsigned char bTime;
    char **endptr;

    copyright();

    if (argc != 2)
    {
        printf(" Parameter incorrect!!\n");
        return 1;
    }

    if (Init_W627EHF() == 0)
    {
        printf(" Winbond 83627HF is not detected, program abort.\n");
        return 1;
    }
    bTime = strtol (argv[1], endptr, 10);
    printf("System will reset after %d seconds\n", bTime);

    EnableWDT(bTime);

    return 0;
}
//=============================================================================
```

```
void copyright(void)
{
        printf("\n======== Winbond 83627EHF Watch Timer Tester (AUTO DETECT) ========\n"\
               "              Usage : W627E_WD reset_time\n"\
               "              Ex : W627E_WD 3    => reset system after 3 second\n"\
               "                   W627E_WD 0    => disable watch dog timer\n");
}
//===========================================================================
void EnableWDT(int interval)
{
    unsigned char bBuf;

    bBuf = Get_W627EHF_Reg( 0x2D);
    bBuf &= (!0x01);
    Set_W627EHF_Reg( 0x2D, bBuf);                    //Enable WDTO

    Set_W627EHF_LD( 0x08);                           //switch to logic device 8
    Set_W627EHF_Reg( 0x30, 0x01);                    //enable timer

    bBuf = Get_W627EHF_Reg( 0xF5);
    bBuf &= (!0x08);
    Set_W627EHF_Reg( 0xF5, bBuf);                    //count mode is second

    Set_W627EHF_Reg( 0xF6, interval);                //set timer
}
//===========================================================================
void DisableWDT(void)
{
Set_W627EHF_LD(0x08);                                //switch to logic device 8
Set_W627EHF_Reg(0xF6, 0x00);                         //clear watchdog timer
Set_W627EHF_Reg(0x30, 0x00);                         //watchdog disabled
}
//===========================================================================


/===========================================================================
//
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// KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE
// IMPLIED WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR
// PURPOSE.
//
//===========================================================================
#include "W627EHF.H"
#include <dos.h>
//===========================================================================
unsigned int W627EHF_BASE;
void Unlock_W627EHF (void);
void Lock_W627EHF (void);
//===========================================================================
unsigned int Init_W627EHF(void)
{
    unsigned int result;
    unsigned char ucDid;

    W627EHF_BASE = 0x2E;
    result = W627EHF_BASE;

    ucDid = Get_W627EHF_Reg(0x20);
    if (ucDid == 0x88)
    {    goto Init_Finish;    }

    W627EHF_BASE = 0x4E;
    result = W627EHF_BASE;
    ucDid = Get_W627EHF_Reg(0x20);
    if (ucDid == 0x88)
    {    goto Init_Finish;    }

    W627EHF_BASE = 0x00;
    result = W627EHF_BASE;

Init_Finish:
    return (result);
}
//===========================================================================
void Unlock_W627EHF (void)
{
    outportb(W627EHF_INDEX_PORT, W627EHF_UNLOCK);
    outportb(W627EHF_INDEX_PORT, W627EHF_UNLOCK);
}
```

```
//=============================================================================
void Lock_W627EHF (void)
{
	outportb(W627EHF_INDEX_PORT, W627EHF_LOCK);
}
//=============================================================================
void Set_W627EHF_LD( unsigned char LD)
{
	Unlock_W627EHF();
	outportb(W627EHF_INDEX_PORT, W627EHF_REG_LD);
	outportb(W627EHF_DATA_PORT, LD);
	Lock_W627EHF();
}

//=============================================================================
void Set_W627EHF_Reg( unsigned char REG, unsigned char DATA)
{
	Unlock_W627EHF();
	outportb(W627EHF_INDEX_PORT, REG);
	outportb(W627EHF_DATA_PORT, DATA);
	Lock_W627EHF();
}
//=============================================================================
unsigned char Get_W627EHF_Reg(unsigned char REG)
{
	unsigned char Result;
	Unlock_W627EHF();
	outportb(W627EHF_INDEX_PORT, REG);
	Result = inportb(W627EHF_DATA_PORT);
	Lock_W627EHF();
	return Result;
}
//=============================================================================




//=============================================================================
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//
//=============================================================================
#ifndef __W627EHF_H
#define __W627EHF_H		1
//=============================================================================
#define W627EHF_INDEX_PORT (W627EHF_BASE)
#define W627EHF_DATA_PORT    (W627EHF_BASE+1)
//=============================================================================
#define W627EHF_REG_LD          0x07
//=============================================================================
#define W627EHF_UNLOCK        0x87
#define W627EHF_LOCK          0xAA
//=============================================================================
unsigned int Init_W627EHF(void);
void Set_W627EHF_LD( unsigned char);
void Set_W627EHF_Reg( unsigned char, unsigned char);
unsigned char Get_W627EHF_Reg( unsigned char);
//=============================================================================
#endif		//__W627EHF_H
```